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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,405

11/10/2005

Dinand Lamberts

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EXAMINER

BERNSTEIN, DANIEL A

ART UNIT

PAPER NUMBER

4166

MAIL DATE

DELIVERY MODE

08/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/553,405	<b>Applicant(s)</b> LAMBERTS ET AL.	
	<b>Examiner</b> DANIEL A. BERNSTEIN	<b>Art Unit</b> 4166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/17/2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/17/2005</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 5, and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,468,143 to Weber et al. (Weber).

Weber teaches:

#### In Reference to claim 1

A gas burner, said burner comprising a metal burner membrane (1, see Fig.1), said membrane comprising a base section (see Fig. 2, where Weber shows a metal burner membrane that has a radius at it's base that is equal to the transition radius as disclosed by the applicant) having a smallest radius of curvature being  $R_{sub.base}$  and a closing section (rounded top of Fig. 2), characterized in that said membrane being uninterrupted (Fig. 2 shows a smooth uninterrupted surface) comprises a transition region (Fig. 2 shows transition region between the closing section and the base) for connecting said base section to said closing section, said transition region having a smallest radius of curvature  $r_{sub.transition}$  being larger than zero and being smaller or equal to said  $R_{sub.base}$  (Fig. 2, in which the circular structure of Weber conforms the constraints of "smaller or equal to").

#### In Reference to claim 5

A gas burner as in claim 1 (see rejection of claim 1), wherein said membrane comprises a foraminated plate or sheet (Column 4, lines 48-52).

In Reference to claim 10

A gas burner as in claim 1 (see rejection of claim 1), wherein said base section has a frustoconical shape (Column 3, lines 34-37).

In Reference to claim 11

A gas burner as in claim 1 (see rejection of claim 1), wherein said base section has a cylindrical shape (see Fig. 2a).

In Reference to claim 12

A gas burner as in claim 10 (see rejection of claim 10) wherein said transition region is part of a torus surface delimited by two planes perpendicular to the axis of symmetry of said torus (see Fig. 4a which can be formed by a torus which is circle that is rotated around an axis of symmetry, or more simply a donut shaped cross-section).

In Reference to claim 13

A gas burner as in claim 1 (see rejection of claim 1), wherein said base section has a polygonal cross section, the corners of said cross section being rounded (Fig. 4).

In Reference to claim 14

A gas burner as in claim 1 (see rejection of claim 1), wherein said base section has a rectangular cross section, the corners of said cross section being rounded (Fig.4).

In Reference to claim 15

A gas burner as in claim 1 (see rejection of claim 1), wherein said base section is a truncated pyramid, said pyramid having rounded edges (Fig. 9a, where truncated

means to shorten something by cutting off a part of it and a pyramid with rounded edges could also be interpreted as a cone).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-4 and 6-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Weber in view of US Patent No. 6,065,963 to Dewaegheneire et al. (Dewaegheneire).

In Reference to claim 2

Weber teaches a gas burner as in claim 1 (see rejection of claim 1), but does not teach wherein said membrane comprises a fabric comprising stainless steel fibers.

Dewaegheneire teaches said membrane (2, Fig. 1) comprises a fabric comprising stainless steel fibers (Column 2, lines 7-10).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have combined the stainless steel of Dewaegheneire's burner membrane with Weber's burner membrane. This is an obvious combination, because it is well known that stainless steel has very high heat-resistant properties and therefore would be an obvious choice to design the burner membrane with stainless steel.

In Reference to claim 3

Weber in view of Dewaegheneire teaches a gas burner as in claim 2 (see rejection of claim 2), wherein said stainless steel fibers are arranged essentially parallel into bundles (Dewaegheneire, Column 2, lines 15-17).

In Reference to claim 4

Weber in view of Dewaegheneire teaches a gas burner as in claim 3 (see rejection of claim 3), wherein said bundles are knitted or braided or woven (Dewaegheneire, Column 1, lines 5-6).

In Reference to claim 6

Weber teaches a gas burner as in claim 1 (see rejection of claim 1), wherein said burner membrane comprises a foraminated plate (1, Fig.1), but Weber does not teach said transition region is at the outside disposed with stainless steel fibers.

Dewaegheneire does not teach a said transition region, but does teach an outside (burner membrane 2) disposed with stainless steel fibers (Column 2, lines 7-10).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to have combined the stainless steel of Dewaegheneire's burner membrane with Weber's burner membrane. This combination can be made because it is well known that stainless steel has very high heat-resistant properties and therefore would be an obvious choice to design the burner membrane with stainless steel.

In Reference to claim 7

Weber in view of Dewaegheneire teaches a gas burner as in claim 6 (see rejection of claim 6), wherein said base section (Fig. 2 of Weber) and said closing

section (rounded top of Fig. 2) are at least partially disposed with stainless steel fibers (Column 2, lines 7-10).

In Reference to claim 8

Weber in view of Dewaegheneire teaches a gas burner as in claim 6 (see rejection of claim 6), wherein said stainless steel fibers are arranged essentially parallel into bundles (Dewaegheneire, Column 2, lines 15-17).

In Reference to claim 9

Weber in view of Dewaegheneire teaches a gas burner as in claim 8 (see rejection of claim 8), wherein said bundles are knitted or braided or woven (Dewaegheneire, Column 1, lines 5-6).

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent No.'s 3,358,731, 3,857,670, 2,006,275 and PGPub 2006/0040224 which all show burner membranes that are relevant to the novelty of the applicants claimed invention. JP 01121609A shows a burner membrane using stainless steel.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL A. BERNSTEIN whose telephone number is (571)270-5803. The examiner can normally be reached on Monday-Friday 8:00 AM - 5:00 PM EDT.

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7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Bomberg can be reached on 571-272-4922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DAB

/Kenneth Bomberg/  
Supervisory Patent Examiner, Art Unit 4166